Directed Differentiation of Specialized Endothelial Cells

Grant Award Details

Directed Differentiation of Specialized Endothelial Cells

Grant Type: Basic Biology V

Grant Number: RB5-07414

Project Objective: The overall goal of the project is to understand endothelial cell (EC) differentiation to provide a basis for the in vitro derivation of distinct EC subtypes.

Investigator:

Name:	Kara McCloskey
Institution:	University of California, Merced
Type:	PI

Disease Focus: Vascular Disease

Human Stem Cell Use: Embryonic Stem Cell, iPS Cell

Award Value: $475,686

Status: Closed

Progress Reports

Reporting Period: Year 1

View Report

Reporting Period: Year 2

View Report

Grant Application Details

Application Title: Directed Differentiation of Specialized Endothelial Cells

Public Abstract:	Vascular endothelial cells (EC) or endothelial progenitor cells (EPC) derived from stem cells could potentially lead to a variety of clinically relevant therapeutic applications, including various strategies for treating heart and vascular diseases. However, because EC exhibit a variety of functionally distinct subphenotypes, it is important to be able to generate the appropriate endothelial type. This study will explore the limits and importance of EC fate and generate methodologies for directing EC subphenotypes.
Statement of Benefit to California:	Vascular endothelial cells (EC) or endothelial progenitor cells (EPC) derived from stem cells could potentially lead to a variety of clinically relevant therapeutic applications, including various strategies for treating heart and vascular diseases. However, because EC exhibit a variety of functionally distinct subphenotypes, it is important to be able to generate the appropriate endothelial type. This study will explore the limits and importance of EC fate and generate methodologies for directing EC subphenotypes for treating these patients.